

REMARKS

The Examiner's indication of allowable subject matter is noted with appreciation.

Claims 1, 9-13, 15, 23, 24, 26, 27, 29-31, 34, 41, 42, 44, 45, 47-49, 59, 60, 62, and 63 have been amended. Support for the amendments is found at least in the specification and claims as filed. Accordingly, the amendments do not introduce new matter.

Claims 3, 8, 16, 22, 33, 40, 51, 57, 58, and 65-71 have been cancelled without prejudice or disclaimer. As a result, claims 1-2, 4-7, 9-15, 17-21, 23-32, 34-39, 41-50, 52-56, and 59-64 remain pending in the present application. Reconsideration of the application in view of the foregoing amendments and following comments is respectfully requested.

Claim Rejection - 35 U.S.C. §112, Second Paragraph

The Office Action rejected claims 1, 9, 13, 15, 23, 27, 29, 30, 34, 41, 45, 47, 48, 59, and 63 under 35 U.S.C. §112, second paragraph as being indefinite. Specially, the Office Action stated that these claims are rejected for failing to define how to form the layers defined in these claims.

All claims mentioned above have been amended to incorporate forming methods for the layers in these claims to eliminate the problem stated above. For example, in claim 1, "forming a base layer... on the substrate" has been changed to "forming a base layer... on the substrate by plating, sintering, or brazing".

The Office Action rejected claims 1, 9, 15, 23, 29, 31, 41, 47, 49, and 59 under 35 U.S.C. §112, second paragraph as being indefinite. Specially, the Office Action stated that these claims are rejected for failing to define how to remove the layers defined in these claims.

All claims mentioned above have been amended to incorporate removing methods for the layers in these claims to eliminate the problem stated above. For example, in claim 1, "removing the substrate" has been changed to "removing the substrate by wet etching or grinding".

The Office Action rejected claims 10, 12, 13, 24, 26, 27, 30, 31, 48, 49, 60, 62, and 63 under 35 U.S.C. §112, second paragraph as being indefinite. The problem is mainly raised due to the sentence pattern "wherein... further comprises...".

All claims mentioned above have been amended in the manner kindly suggested by the Examiner to eliminate the problem stated above. For example, claim 10 has been amended to include “further comprising roughening surfaces of the abrasive particles to increase adhesion between the abrasive particles and the base layer between the steps of forming the base layer and forming the binding layer”.

The Office Action rejected claims 14, 28, 46, and 64 as being indefinite for the meaning of the “like” in the limitation “diamond-like” being unclear. The “diamond-like material” is a typographical error of “diamond-like carbon”. Therefore, claims 14, 28, 46, and 64 have been amended accordingly. The term “diamond-like carbon” has a well defined meaning in the art. For example, related technical information about diamond-like carbon can be referred to US 4,647,512 and US 5,268,217. Claims 14, 28, 46 and 64 are therefore definite.

The Office Action stated that claims 29 and 34 are indefinite as to the limitation “padding particles”. The support of the padding particles (23) in the specification can be found in Fig. 7 and the related descriptions from the last paragraph on page 10 to the first paragraph on page 11. The padding particles (23) are used to produce a rough surface on the first base layer (24a) to help the tip of abrasive particles (11) contact the first base layer (24a). Therefore, the meaning of the padding particles based on the specification is clear. Claims 29 and 34 are therefore definite.

The Office Action stated that claim 40 is indefinite as to the limitation “the second layer”. Claim 40 has been cancelled.

The Office Action stated that claims 42, 44, and 45 are unclear as to when the steps take place. For claim 42, “between the steps of forming the second base layer and forming the binding layer” has been added to the end. For claim 44, “between the steps of forming the binding layer and removing the substrate” has been added to the end. For claim 45, “after removing the fixation layer” has been added to the end. In light of the foregoing amendments, the problem mentioned above has been eliminated.

Accordingly, reconsideration and withdrawal of this rejection are respectfully requested.

Claim Rejection - 35 U.S.C. §112, First Paragraph

The Office Action rejected claims 1, 9, 13, 15, 23, 27, 29, 30, 34, 41, 45, 47, 48, 59, and 63 under 35 U.S.C. §112, first paragraph as being unenabled by the written description. Specially, the Office Action stated that these claims are rejected because the specification does not provide support for any and all forming methods known.

The Office Action also rejected claims 1, 9, 15, 23, 29, 31, 41, 47, 49, and 59 under 35 U.S.C. §112, first paragraph, as being unenabled. Specially, the Office Action stated that these claims are rejected because the specification does not provide support for any and all removal methods known.

Since the claims mentioned above have been amended to incorporate the forming methods and removal methods as stated above, reconsideration and withdrawal of this rejection is respectfully requested.

Specification Amendments

The “diamond-like film” in the third paragraph on page 9 has been changed to “diamond-like carbon” for correcting the above-noted typographical error.

A description of Fig. 10 is not included in the originally filed specification. However, the second paragraph on page 5 in the SUMMARY section can be considered to include a description of Fig. 10. Therefore, the new paragraph describing Fig. 10 which is based on the second paragraph on page 5 and is inserted between the second and the third paragraphs on page 11 does not include new matter.

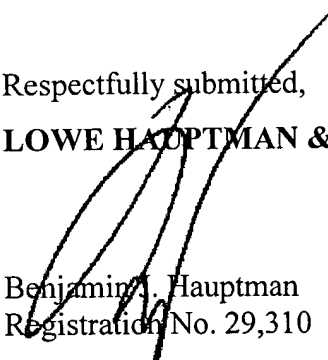
Conclusions

For all of the above reasons, applicant submits that the specification and claims are now in proper form, and that the claims define patentably over the cited prior art. Therefore, applicant respectfully requests issuance for this case at the Office’s earliest convenience.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 07-1337 and please credit any excess fees to such deposit account.

Respectfully submitted,

LOWE HAUPTMAN & BERNER, LLP


Benjamin J. Hauptman
Registration No. 29,310

Customer Number: 22429
1700 Diagonal Road, Suite 300
Alexandria, Virginia 22314
(703) 684-1111
(703) 518-5499 Facsimile
Date: November 17, 2005
BJH/jk